# Joint Common Missile
# MANPRINT Process

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# Joint Common Missile Program Overview

JCM Video

# Joint Common Missile Program Overview

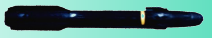
| NEAR-TERM (FY03-08) | MID-TERM (FY09-15) | MID/FAR - TERM (FY12-23) |
|---|---|---|

Air

TOW 2A

BASIC HELLFIRE

INTERIM HELLFIRE



HELLFIRE II

LONGBOW HELLFIRE

Joint & Coalition

MAVERICK

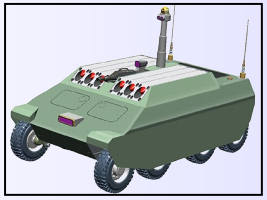
BRIMSTONE

SEA SKUA

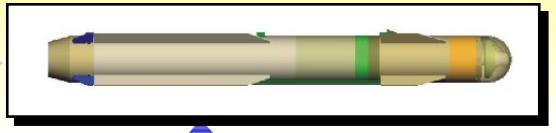
OTARY & FIXED WING PLATFORMS

Technology Insertion

FUTURE FORCE GROUND PLATFORMS



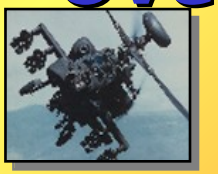
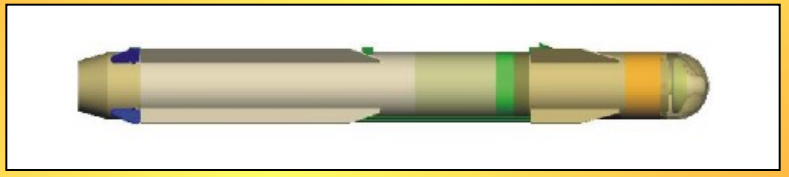
**Ultimate Objective: SINGLE MISSILE**



Tailored To Meet Joint & Coalition Requirements

# Joint Common Missile Program Overview

PLATFORMS

## DESCRIPTION

- Joint Program with Navy – Army Lead
- Modular Missile Approach to Address
  Incremental Requirements
- Potential Application to Future Combat
  Systems Ground Platforms
- Accommodates HTI Leveraging

## BENEFITS / CAPABILITIES

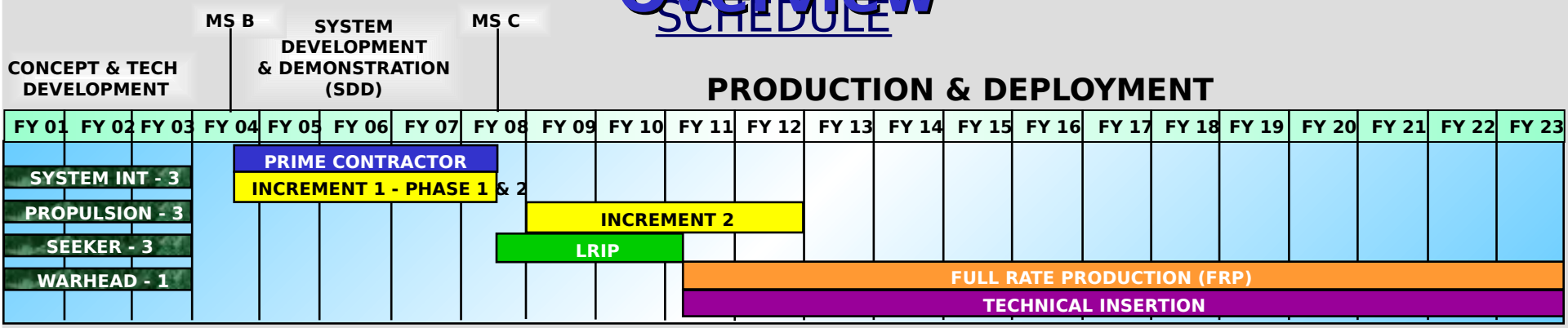
- Provides Line of Sight (LOS) & Beyond LOS
- Precision Strike & Fire and Forget Modes
- Lock On Before Launch & Lock On After Launch
- Extended Range and Countermeasure
  Robustness
- Platforms: Rotary, Fixed Wing,

## KEY PERFORMANCE PARAMETER

- Targeting Capability
- Combat Effectiveness/Relia
- Range
- Interoperability
- Carrier/Shipboard Operabil

# Joint Common Missile Program Overview

## SCHEDULE


MS B
MS C
CONCEPT & TECH DEVELOPMENT
SYSTEM DEVELOPMENT & DEMONSTRATION (SDD)
PRODUCTION & DEPLOYMENT
FY 01 FY 02 FY 03 FY 04 FY 05 FY 06 FY 07 FY 08 FY 09 FY 10 FY 11 FY 12 FY 13 FY 14 FY 15 FY 16 FY 17 FY 18 FY 19 FY 20 FY 21 FY 22 FY 23
PRIME CONTRACTOR
INCREMENT 1 - PHASE 1 & 2
INCREMENT 2
LRIP
FULL RATE PRODUCTION (FRP)
TECHNICAL INSERTION
SYSTEM INT - 3
PROPULSION - 3
SEEKER - 3
WARHEAD - 1

## Lockheed Martin-- Selected as System Development & Demonstration Prime Contractor

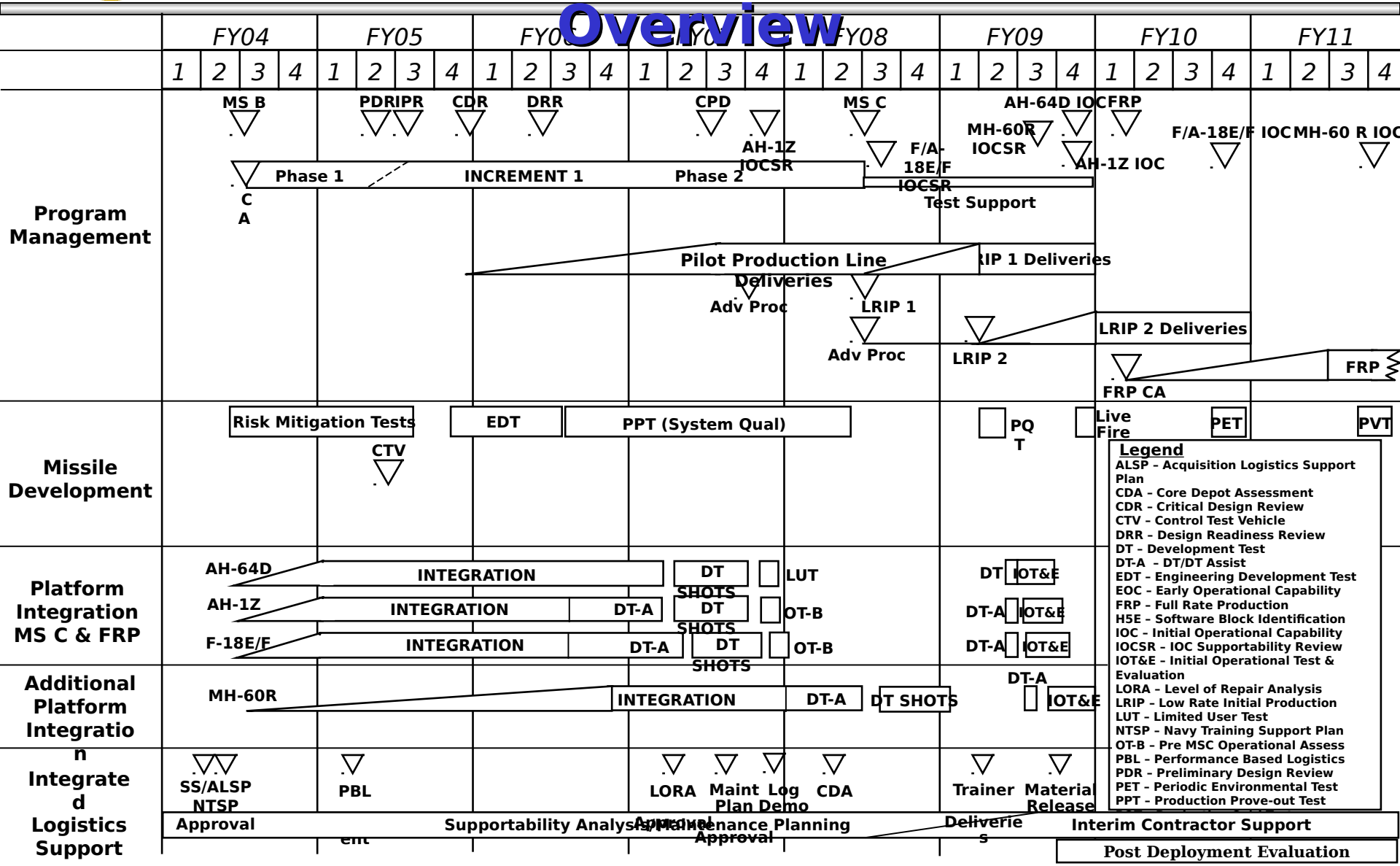
### JCM OBJECTIVES

- Provide Greater Lethality, Survivability and Ope
  Support of Joint Operations and Common Target
- Mitigate Risk from the Aging Hellfire, USMC TOW
  Missile Inventory
- Exploit Commonality Against Joint Requirements
- Provide Reduced Logistics Burden and Life Cycle
- Exploit Modular Design to Facilitate Incrementa
- Address Congressional Concerns of Too Many Ta
- Low Technical Risk Candidate Lethality System

### ACQUISITION STRATEGY

- Competitive Selection of Cont
  for SDD/ LRIP
- Technology Insertions
- Maximum Use of Hardware-in-
  (HWIL) Acceptance Test

# Joint Common Missile Program Overview



# Joint Common Missile Milestone B Assessment Summary

- **JCM MANPRINT Assessment**

  **Approved by HQDA, G-1 MANPRINT Directorate on 7 January 04**

  **AMBER**

  **MANPRINT Rating for the Milestone B decision review is**

**Domain Assessment Status**

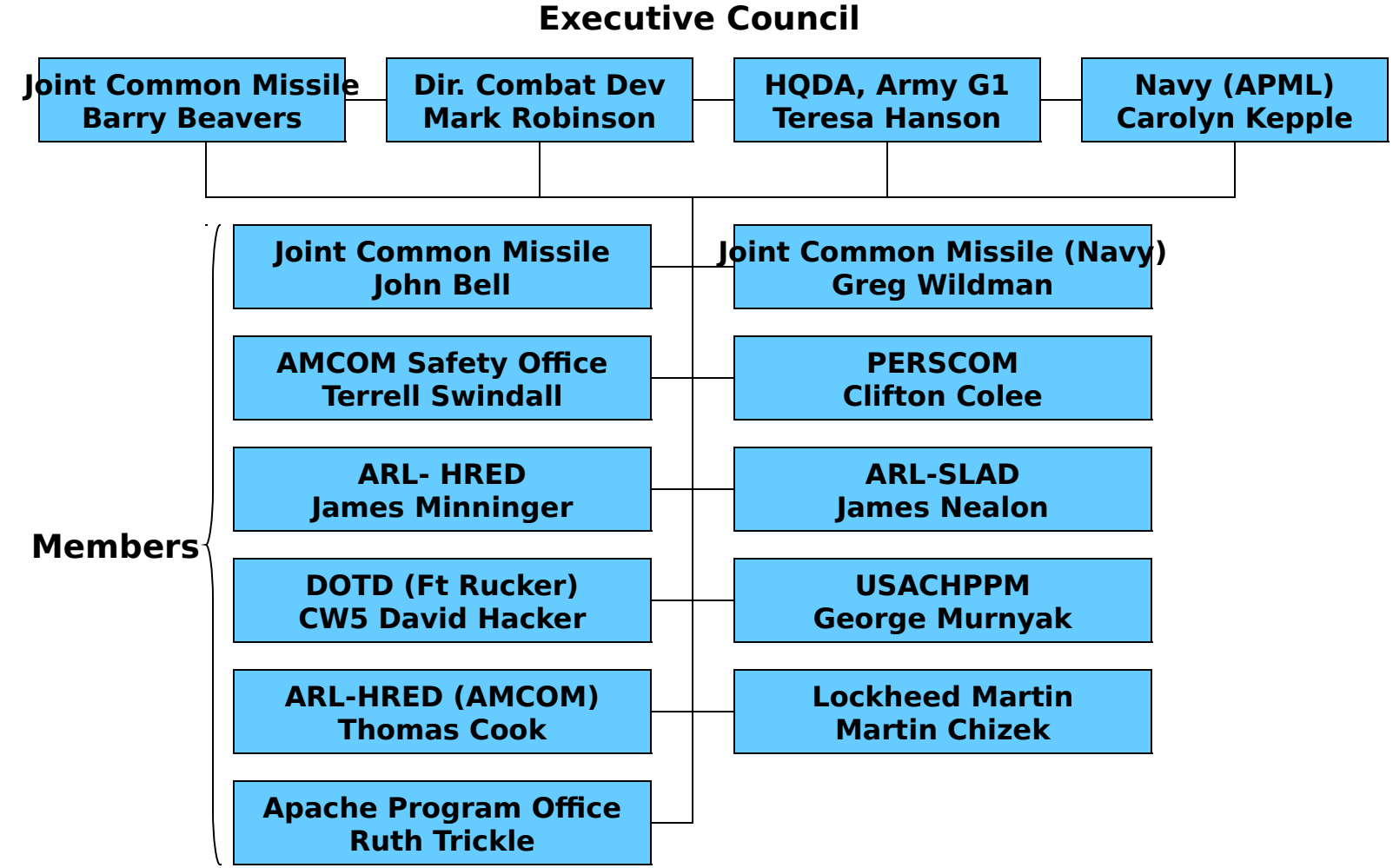
| DOMAIN | RATING |
|---|---|
| Manpower Personnel Training | |
| Human Factors Engineering | |
| Safety | |
| Health Hazards | |
| Soldier Survivability | |

# Joint Common Missile System MANPRINT Management Plan

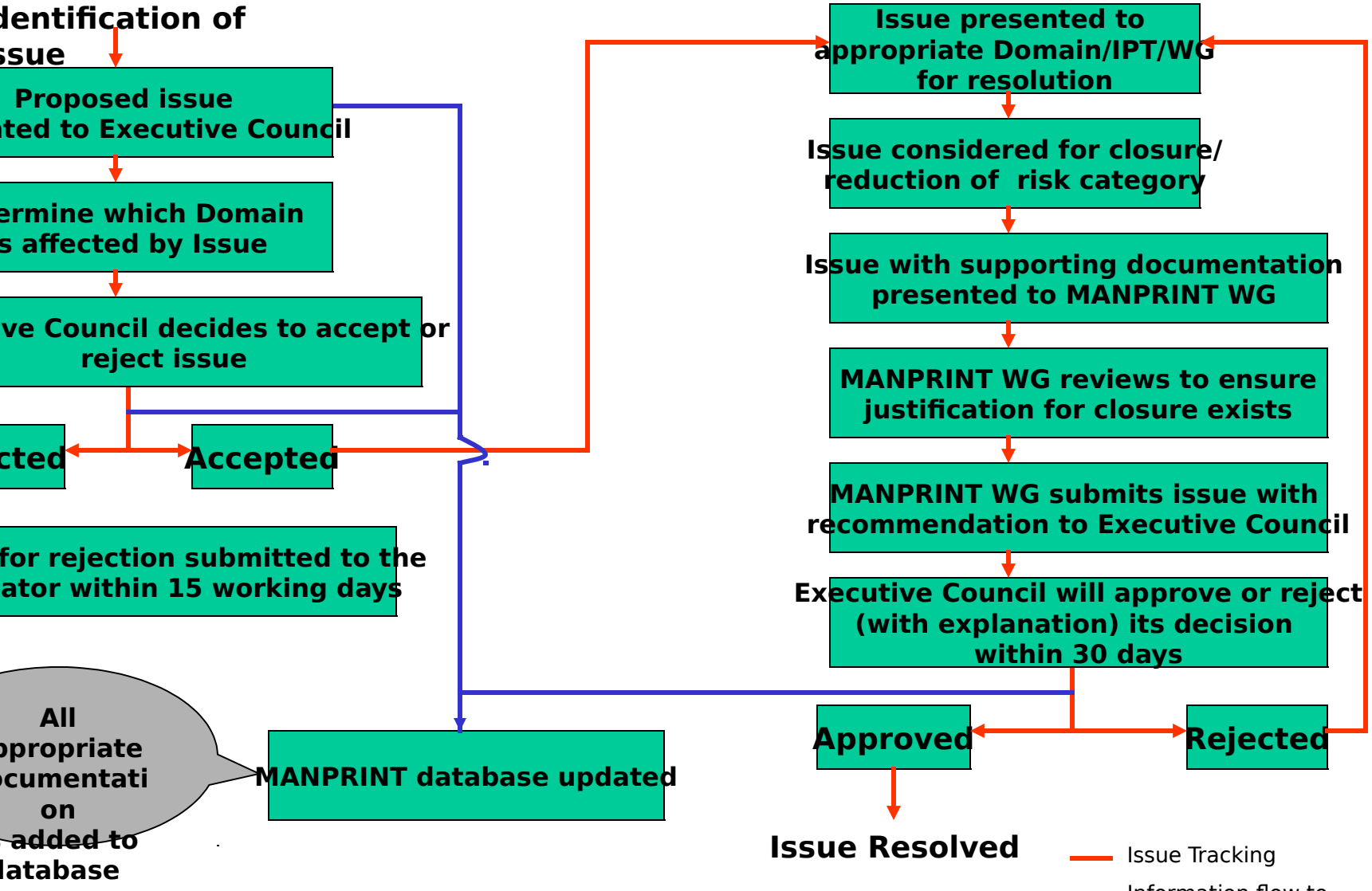
**System MANPRINT Management Plan (SMMP)**

- **Approved 20 January 04**
- **Includes**
  - **MANPRINT Management Plan**
  - **MANPRINT Working Group Charter**
  - **MANPRINT Issues Tracking Matrix**
- **MANPRINT Working Group**
  - **Membership includes an Executive Council and Working Group**
  - **Purpose**
    - **Establishes a technically qualified group to support JCM Project Manager**
    - **Provides effective MANPRINT management**
    - **Provides a forum for the introduction and closure of MANPRINT issues**

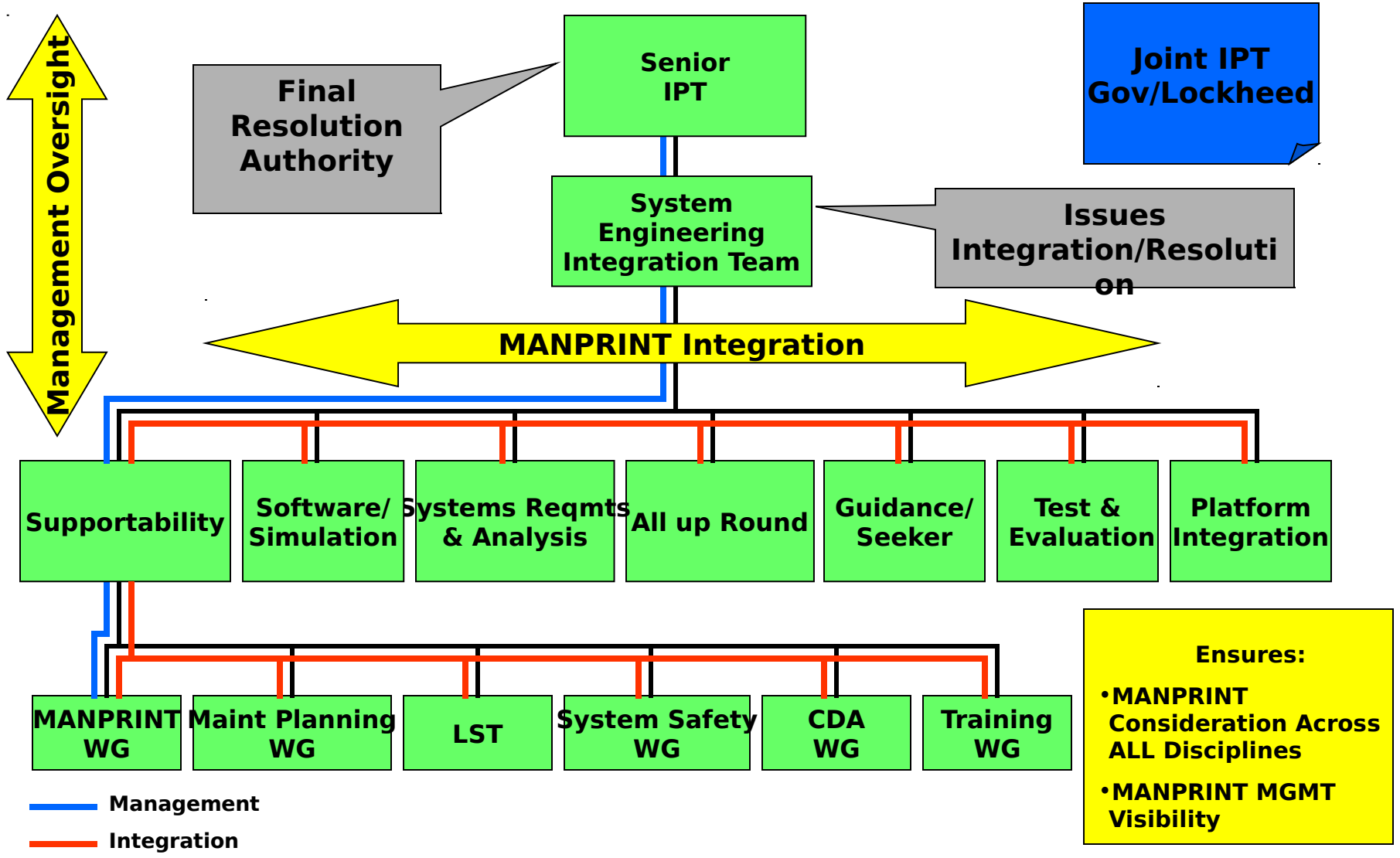
# Joint Common Missile MANPRINT Working Group Members



# Joint Common Missile
# MANPRINT Issue Process


Identification of Issue
Proposed issue presented to Executive Council
Determine which Domain is affected by Issue
Executive Council decides to accept or reject issue
Rejected
Accepted
Reason for rejection submitted to the originator within 15 working days
All appropriate documentation is added to database
MANPRINT database updated
Issue presented to appropriate Domain/IPT/WG for resolution
Issue considered for closure/ reduction of risk category
Issue with supporting documentation presented to MANPRINT WG
MANPRINT WG reviews to ensure justification for closure exists
MANPRINT WG submits issue with recommendation to Executive Council
Executive Council will approve or reject (with explanation) its decision within 30 days
Approved
Rejected
Issue Resolved
Issue Tracking
Information flow to database

# Joint Common Missile
# IPT Management (Army/Navy)



# Joint Common Missile Navy SEAPRINT Integration

- **SEAPRINT is the Navy's approach to Human Systems Integration.**

- **JCM MANPRINT has been integrating the Navy since inception.**

  - **Navy representation on the JCM MANPRINT Executive Council.**
  - **Navy membership within the JCM MANPRINT Working Group.**
  - **Navy representation at JCM MANPRINT meetings/tele-conferences.**

- **JCM MANPRINT issues that have been identified are incorporating Navy response in order to reduce or mitigate risk.**

- **JCM MANPRINT is incorporating Navy unique issues with respect to shipboard operations.**

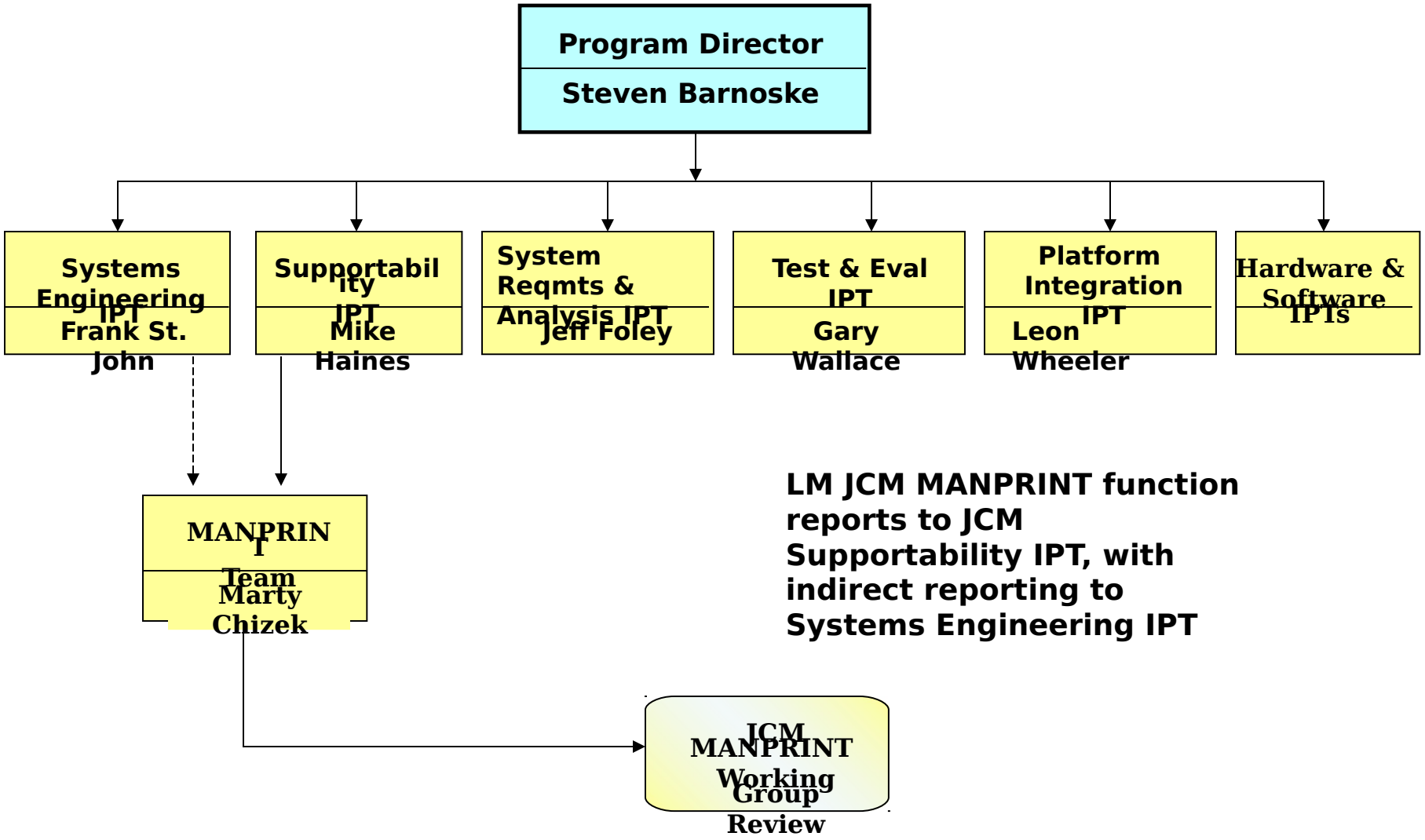
# Joint Common Missile System MANPRINT Management Plan (Demonstration)

SMMP



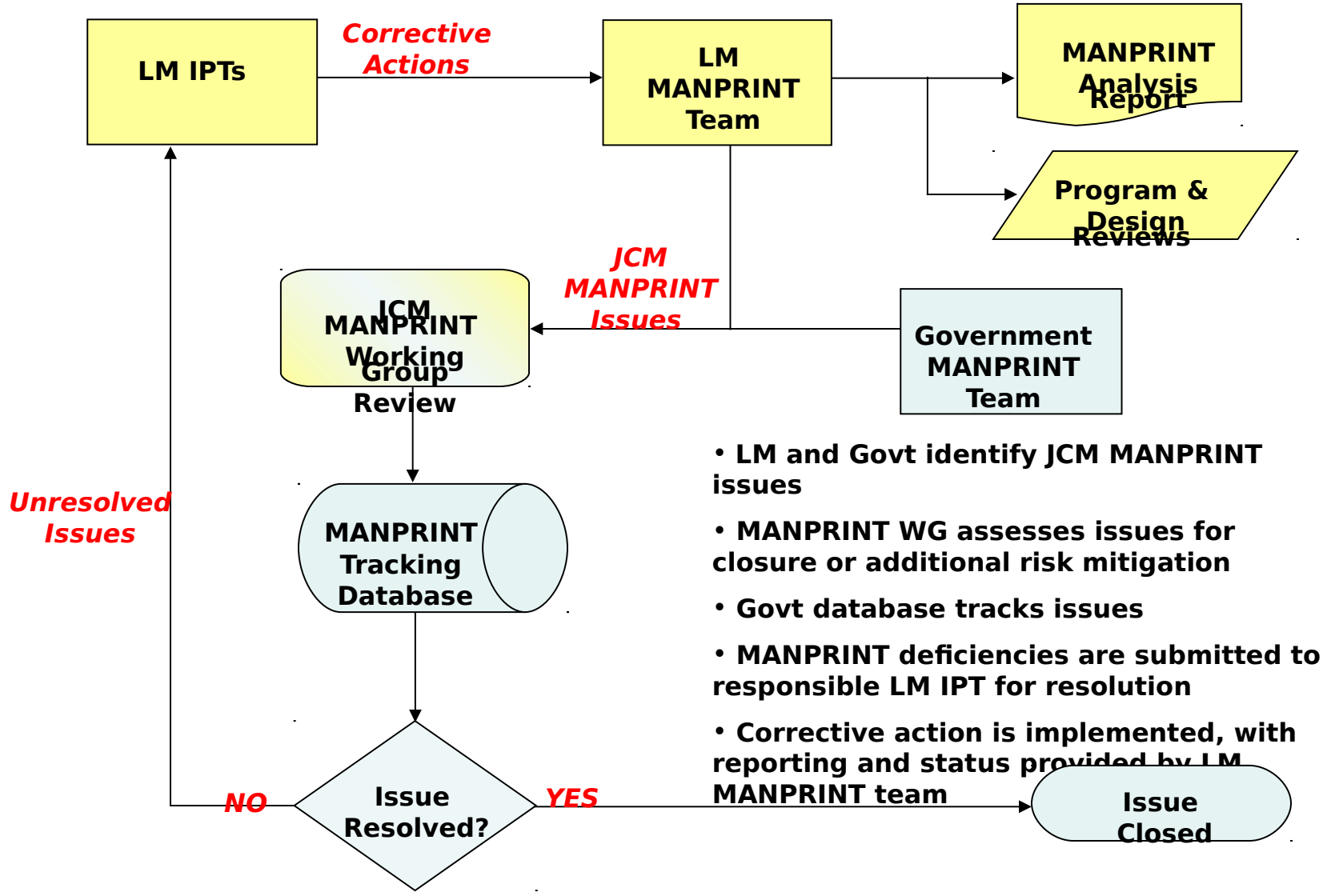
UNCLASSIFIED

# Joint Common Missile Lockheed MANPRINT Design Influence




**LM JCM MANPRINT function reports to JCM Supportability IPT, with indirect reporting to Systems Engineering IPT**

# Joint Common Missile Lockheed MANPRINT Design Influence




- LM and Govt identify JCM MANPRINT issues
- MANPRINT WG assesses issues for closure or additional risk mitigation
- Govt database tracks issues
- MANPRINT deficiencies are submitted to responsible LM IPT for resolution
- Corrective action is implemented, with reporting and status provided by LM MANPRINT team

# Joint Common Missile
# MANPRINT Process Summary

## Keys to Success

- **Establish MANPRINT working group early in the Acquisition process**
  - **Prior to MS B to impact CDD (early user involvement)**
  - **Facilitates early coordination of other program documents**
- **Educate and communicate with domains early on program details**
  - **Provide changes to program documents as they occur**
  - **Resolve concerns before they become an assessment issue**
- **Develop the SMMP as a tool as well as a Milestone decision document**
- **Early integration of impacted systems (e.g. missile to platform)**
- **After contract award**

# Joint Common Missile
# MANPRINT Process

## BACK-UP

# Joint Common Missile Strategy for Mitigating Critical Issue

- **Issue: The JCM launch platforms sensor capabilities do not provide for positive target identification at JCM's maximum range capabilities.**
  - **Development of sound and comprehensive Cooperative Engagement techniques by the Weapons Employment Working Group**
  - **Incorporation of MANPRINT personnel from user platforms into the JCM MANPRINT Working Group**
  - **It is an objective requirement that the JCM be capable of accepting "Search Zones" (areas defined by the operator in which the missile can only engage that area for targets) and/or "No Attack Zones" (areas defined by the operator in which the missile must never engage targets).**
  - **The Army's introduction of Blue Force Tracking**
  - **User platforms current plans to introduce advanced sensor's with ication**

**Not A Unique JCM Issue**